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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,571	11/12/2001	Denis Vincent	2-1034-061	8257

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EXAMINER

WILKINS III, HARRY D

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 01/31/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/054,571

Applicant(s)

VINCENT, DENIS

Examiner

Harry D Wilkins, III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/460,471.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 5 and 6 are pending.
2. This is a supplemental response to the action mailed on 18 December 2002.

This action is based on claims 5 and 6 submitted by Applicant in the amendment filed on 11 February 2002, which was brought to the attention of the Examiner on 15 January 2003, and which was transmitted to the Office on that day, including the original Certificate of Mailing and the return receipt postcard, with a stamped date of 27 February 2002 (i.e.-before the mail date of the first Office Action).

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 5 and 6 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7-9 of U.S. Patent No. 6,342,182. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 7 of US 6,342,182 is within the scope of the present claim 1. Present claim 1 recites a gray gold alloy containing Au, Pd, Cu, In and

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Ga, with the balance being at least one element selected from a list that includes Ti.

This composition is within the range disclosed in claims 7, 8 and 9 of US 6,342,182.

Thus, US 6,342,182 teaches a broader range of composition than currently claimed.

However, it would have been within the expected skill of a routineer in the art to have optimized the composition of US 6,342,182 in order to maximize the properties of the alloy. Therefore, present claim 5 ^{would be} ~~is~~ obvious in view of claims 7-9 of US 6,342,182.

Please see *In re Malagari* 182 USPQ 549 and MPEP 2144.05. Regarding present claim 6, this composition is also within the broad range disclosed by claims 7-9 of US 6,342,182. Similarly, it would have been within the expected skill of a routineer in the art to have optimized the composition of US 6,342,182 in order to maximize the properties of the alloy. Therefore, present claim 6 is obvious in view of claims 7-9 of US 6,342,182.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimoto (JP 09-078160) in view of Kashiwagi (JP 09-184033) and Steinke et al (US 5,240,172).

Fujimoto teaches (see English abstract) a white gold alloy that contains 75 wt% Au, greater than 10 wt% Pd and greater than 10 wt% Cu. The range of Pd disclosed by

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Fujimoto contains the presently claimed range. It would have been within the expected skill of a routineer in the art to have selected an appropriate value for Pd within the disclosed range in order to optimize the machinability, hardness and strength of the alloy (see English abstract). The range of Cu disclosed by Fujimoto touches at the endpoint of the claimed range. See *Titanium Metals Corp. v. Banner* 227 USPQ2d 773 and MPEP 2144.05. The alloy of Fujimoto is free from Ni.

Fujimoto fails to teach that the alloy contains In or Ga and the balance of the composition being selected from at least one of Ir, Re, Zn, Nb, Si, Ta and Ti.

Kashiwagi teaches (see English abstract) a similar white gold alloy that contains 0.5-5 wt% of at least one of Zn, In and Ir. These elements are added to control the color and also to provide age hardening.

Therefore, it would have been obvious to one of ordinary skill in the art to have added at least one of Zn, In and Ir as taught by Kashiwagi to the alloy of Fujimoto because these elements help control the color of the alloy and provide age hardening. It would have been within the expected skill of a routineer in the art to have selected, Zn and In within the range of 0.5-4.0 wt% to be 1-2 wt% In and 0.002-0.02 wt% Ir in order to optimize the strength and melting point of the alloy and for grain refinement (for support see Coleman et al at col 2, lines 29-44 and Dudek et al at col 2, line 32, respectively).

Steinke et al teaches adding Ga to gold alloys at 0 to 4 wt% for the purpose of lowering the melting range and improving flowability. (See col 3, lines 3-10)

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Therefore, it would have been obvious to one of ordinary skill in the art to have added Ga in an amount of 0.1 to 0.5 wt% to the alloy of Fujimoto in view of Kashiwagi in order to improve the properties of the alloy of Fujimoto in view of Kashiwagi as disclosed by Steinke et al.

Regarding claim 6, Fujimoto discloses 10 wt% Cu. It would have been within the expected skill of a routineer in the art to have selected values of Pd, In, Ga and Ir from within the broadly disclosed ranges in order to optimize the properties of the alloy as described above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry D Wilkins, III whose telephone number is 703-305-9927. The examiner can normally be reached on M-Th 6:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Harry D Wilkins, III
Examiner
Art Unit 1742

hdw
January 29, 2003

ROY KING 
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700